

Public SSB Fact Sheet: Autosar (Autosar)

Projects

Exported on 12/19/2023

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Additional Resources

Short description/ Transmitted information	<ul style="list-style-type: none"> • Applications, SW components, diagnostic and configuration data
Normative document	<ul style="list-style-type: none"> • The standard is splitted up into several specifications: Home AUTOSAR¹
Version/ Release state	<ul style="list-style-type: none"> • -
Release date	<ul style="list-style-type: none"> • -
Application scope	<ul style="list-style-type: none"> • All kinds of vehicles • Non automotive like rail, vessels, power stations, ... • No military, hazardous applications and air crafts
Goals	<ul style="list-style-type: none"> • Improve complexity management of integrated E/E architectures through increased reuse and exchangeability of SW modules between OEMs and suppliers.
Promoting bodies	<ul style="list-style-type: none"> • Autosar GbR
Type	<ul style="list-style-type: none"> • Autosar Standard
IT Standard classification	<ul style="list-style-type: none"> • Interoperability Standard • Integration Standard
Data format	<ul style="list-style-type: none"> • Text Format (ASCII/XML)
Additional available resources	<ul style="list-style-type: none"> • Use Cases, Guidelines, Best Practice, Examplesm, Standard presentation, Demonstrators, Autosar Open Conference • see www.autosar.org²
Relevant prostep ivip project groups	<ul style="list-style-type: none"> • -

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Additional Resources

¹ <https://www.autosar.org/>

² <http://www.autosar.org/>

1 Reasons for promoting standardization (short list):

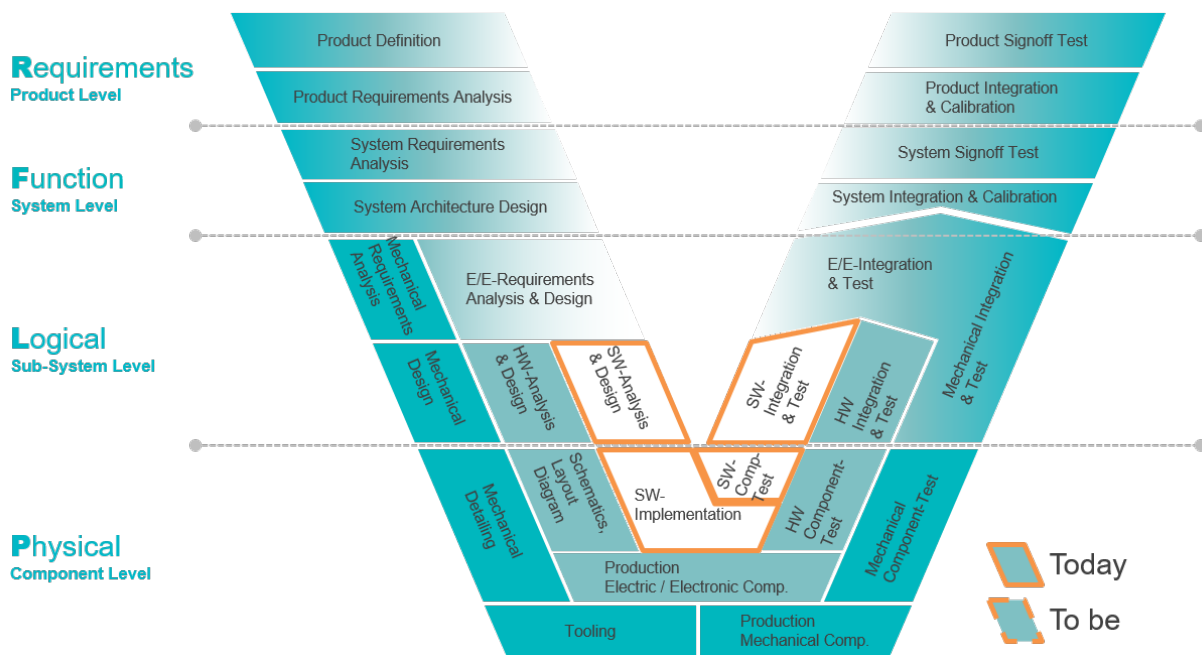
AUTOSAR (**AUT**omotive **O**pen **S**ystem **AR**chitecture) ...

- is a **worldwide** development **partnership** of car manufacturers, suppliers and other companies from the electronics, semiconductor and software industry **with more than 280 partner companies**
- aims to **improve complexity** management of integrated E/E architectures through increased reuse and **exchangeability of SW modules** between OEMs and suppliers.
- provides the **specification for a standardized SW architecture** for automotive electronic control units considering configurability and scalability to different vehicle - and platform variants,
- **supports safe solutions** according to ASIL D (ISO26262) and provides methodology and features to **implement secure solutions**
- enables collaboration between various partners based on **formalized, template based data exchange**
- considers **updates during lifetime** also over the air and
- enables **maintainability throughout the whole product life cycle**.

General Details Positioning in V-Model Relevance and Benefit for MBSE Risks and Impediments

Additional Resources

Positioning of Autosar in V-Model

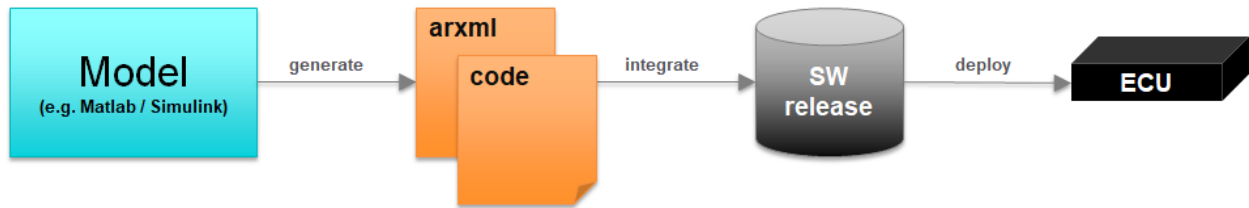


General Details Positioning in V-Model Relevance and Benefit for MBSE Risks and Impediments

Additional Resources

- Established and proven in practice for SW- and data exchange
- AUTOSAR itself is a model based development

- AUTOSAR provides its meta model for tool vendors



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2 Threats:

- Too many legal restrictions for connected vehicle use cases
- Creation of own standards in Asia in particular China

3 Consequences:

- Significant growth of costs
- Increase of quality issues

General Details Positioning in V-Model Relevance and Benefit for MBSE Risks and Impediments

Additional Resources

Datei	Geändert
Fact Sheet_ Autosar (Autosar).pdf ³	März 21, 2023 by Peter Tabbert ⁴
Positioning of Autosar in V-Model.png ⁵	März 21, 2023 by Peter Tabbert ⁶
image2019-10-1_15-36-53.png ⁷	März 21, 2023 by Peter Tabbert ⁸
image2019-10-1_15-29-42.png ⁹	März 21, 2023 by Peter Tabbert ¹⁰

³ https://intranet.prostep.org/download/attachments/108855333/Fact%20Sheet_%20Autosar%20%28Autosar%29.pdf?api=v2

⁴ <https://intranet.prostep.org/display/~petertabbert>

⁵ <https://intranet.prostep.org/download/attachments/108855333/Positioning%20of%20Autosar%20in%20V-Model.png?api=v2>

⁶ <https://intranet.prostep.org/display/~petertabbert>

⁷ https://intranet.prostep.org/download/attachments/108855333/image2019-10-1_15-36-53.png?api=v2

⁸ <https://intranet.prostep.org/display/~petertabbert>

⁹ https://intranet.prostep.org/download/attachments/108855333/image2019-10-1_15-29-42.png?api=v2

¹⁰ <https://intranet.prostep.org/display/~petertabbert>